

**POSSEHN FORESTRY, INC.**

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February 2, 2009

**PAUL F. SHOEN – APPLICATION FOR WATER APPROPRIATION**

**ATTACHMENT #1**

**SECTION "A" NOTICE INFORMATION**

**Item #3 Project Description:**

Mr. Paul Shoen is applying to obtain year-round appropriative water right to all tributaries that naturally flow into Arthur Lake, a seasonal lake in Shasta County. There is no outlet leaving Arthur Lake and it is a closed system. In a state of nature the lake holds approximately 315 acre-feet. Each winter and spring the lake fills with natural runoff from two creeks and two springs. However, by July of each year (depending upon the weather) the lake dries up. It is believed that the lake once maintained its level year-round, but that due to the formation of cracks or fissures in the bottom of the lake, it now fills and dries each year. Mr. Shoen is seeking a permit to increase the lake to a total capacity of 1,485 acre-feet and store that water in the lake year- round.

Past Use: Arthur Lake, when watered, has been used for recreation and wildlife preservation over the last twenty years by Mr. Shoen, and by previous owners.

Existing Structures on Arthur Lake: The south embankment has been altered as the result of previous discussions with DSD and the SWRCB, and no longer functions to hold water. The middle of the 28-foot altered structure has been dipped out and a 24" culvert installed. The west embankment includes a previously rocked "spillway" with large lava rock, and appears to be a natural ridge top composed of native material that abuts up against a bare rock basalt lava flow.

Abnormal Leakage: There are at least three seeps and holes in the lake bottom, mainly on the west end. Using an estimated net annual inflow of 1,473 ac. ft., after deducting for evaporation and percolation, and assuming 9 months of continual full draining, a very rough estimate of the abnormal leakage rate would be 2.69 cfs.

Geology: The geology/topography has two distinct types. A relatively recent blocky, basalt lava flow exists on the southwest portion, dating back to the Holocene or Pleistocene era (10,000 - 2 million years ago) exhibiting a lack of vegetation. This basalt flow apparently cut off the drainage from the valley, creating the closed basin. The leakage problem may have been caused by recent seismic activity or a cooling and shrinkage of the lava core itself. The northeastern side of the lake is underlain by Quaternary sediments less than 2 million years old, derived from erosion of the soil on the andesite flows. The sediments appear to thin in a

southwest direction, until fractures in the basalt are visible.<sup>1</sup> Slopes vary from 40%-55%.

**Soils:** Soils in the bottom of Lake Arthur are Clay loams of the Shingletown Series. The watershed and spillway areas tributary to Arthur Lake are gravelly sandy clay loams of the Lyonsville Series where Dacite Bedrock is two to five feet in depth. Permeability and runoff are rated as "moderate" and water capacity is two to five inches<sup>2</sup>.

**Watershed:** The planning watershed is "Silver Lake" – Cal Water ID# 5507.320205 where annual precipitation has been mapped by DWR at 65 inches. The total watershed draining into Arthur Lake is 595 acres. Vegetation within the lake watershed is fully-stocked commercial conifer forests; mainly White fir with smaller amounts of pine and cedar. The understory consists of sparse to moderate density chaparral and young conifer saplings.

**Biological:** Currently Arthur Lake contains no fish but is used frequently by various species of local and migratory waterfowl. Raptors, in turn, including Bald Eagles forage on the waterfowl and once had a nest above the lake. DFG has inspected the site and waters documenting the lack of fish and that no active Bald Eagle nest currently exists. DFG also made one Willow Flycatcher survey in 2006 with negative results. The current DFG CNDDDB Wildlife Database was checked, February 2008 and no known listed or sensitive species occurs within the vicinity of Arthur Lake.

**Environmental/Erosion:** Arthur Lake is a closed system, hence if the embankment should fail, flood waters and debris would flow directly into a lava field and be contained without entering or contaminating a stream system. Overflow from the west embankment spillway will flow along a lava field and would be to be loss to natural percolation.

**Proposed Work:** The following projects are proposed.

1. File and obtain water and storage rights for Arthur Lake from SWRCB.
2. Reconstruct the existing south embankment with the proper permits. The embankment would have enough height to accommodate a 4,759' elevation lake level. The area to be disturbed is estimated to be .75 acres. A low-water outlet pipe will be installed along with a low-water rocked spillway to facilitate emergencies and maintenance on the structure.
3. Evaluate the existing elevation 4,759' west embankment "rocked spillway," located on an existing lava bed, and bringing it into conformance with DSD requirements if necessary. The area to be impacted is estimated at .25 acres.

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<sup>1</sup> Lawrence & Associates, 1997

<sup>2</sup> Soil Survey of Shasta County Area, USDA, SCS, USFS, U of C Agricultural Experiment Station, August 1974.

4. Plug volcanic cracks and significantly reduce leakage in the lake bottom. A Civil Engineer shall make recommendations as to the type of material and methods used to seal the cracks. A 1600 permit shall be obtained from the Dept. of Fish & Game if required for work done on the lake bottom. The area to be impacted is estimated at .21 acre.

5. Fish would be artificially stocked under permit from Dept. of Fish & Game that would provide recreation and a food source for a variety of raptors, mammals, and other species.

6. Monitoring to be conducted as necessary to ensure leakage is kept to a minimum, and that both the embankments and spillway are competent and functioning correctly.

**Item #4 Purpose and Use:**

Three of the four sources of water, all of which are unnamed, provide water from approximately October 15 to April 30 of each year, while one source, an unnamed spring runs all year for most years.

It is not clear on whether the applicant is required to apply for the entire 1,485 acre-foot of storage in the lake, or whether the natural lake level of 315 acre-feet should be subtracted from this.

**Item #5: Sources and Points of Diversion:**

The spillway (west embankment) is a natural landform, and therefore, was not listed as a POD.

**Item #6 Water Availability Analysis:**

The length of the affected drainage area is 1.5 miles. Winter runoff drains into springs, and small permanent and intermittent channels, which all flow directly into Arthur Lake without any diversion. In addition, a series of springs on the Shoen property ties into the input channel and into the lake.

No water has been appropriated on the waters flowing into Arthur Lake that I am aware of. Roseburg Lumber Company may or may not use small amounts of water, intermittently, for dust abatement on logging roads. This use takes place usually once every 3-5 years. The Applicant, Paul Shoen, does not wish to infringe upon this use.

**Physical Description of Inflow:**

Originating from neighboring Roseburg Resources Co.:

- a) One large permanent spring with 36" culvert under road at property line.
- b) An intermittent stream: Two 30" culverts under road at property line.
- c) A permanent spring: 36" x 30" arch culvert under road at property line.

Originating from Applicant's Property:

- d) A large permanent spring with a peak flow channel of 24" x 3".
- e) An intermittent spring with peak flow channel 24" x 8".
- f) An intermittent spring with peak flow channel of 16" x 6".
- g) An intermittent channel with peak flow channel of 16" x 6".
- f) Snowmelt runoff directly into Arthur Lake.

The rainfall-Runoff Method is being used to show the water right and storage volume being applied for is actually available. Two calculations were made; 531 acres of timberland and 64 acres for Arthur Lake.

$$Q = C I A$$

C = Runoff coefficient: = **.50**

Relief = .32

Soil Saturation = .06

Vegetative Cover = .04

Surface Storage = .08

Total: = .50

I = Annual Rainfall in Feet:

The Silver Lake Planning Watershed (Calwater ID v 2.2: 5507.320205) as mapped by DWR shows 65 inches of annual precipitation = **5.42 feet**

A = Drainage Area: = **595 Acres**

"Q" Timberland= (.50) x (5.42 feet) x (531 acres) = 1,439 ac. ft.

"Q" Lake = (1.0) x (5.42 feet) x (64 acres) = 347 ac. ft.

**"Q" Total Gross Annual Runoff (inflow into Arthur Lake)= 1,786 ac. Ft.**

Less Evaporation: Agricultural ponds usually have an annual evaporation rate of 48".<sup>3</sup> Arthur Lake is at a much higher elevation with cooler temperatures; therefore, 42" is being used. 3.5' x 64 acres = (224 ac. ft.)

Less Seepage and Percolation: This is an arbitrary number and actual seepage will depend on how successful the applicant is sealing off the leaks in the lake bottom. Data was received from Cal Fire showing an agricultural pond had evaporation, seepage, and percolation at 17% so therefore I am using 5% for seepage and percolation alone.<sup>4</sup>

1,786 ac. ft. x 5% = (89 ac.ft.)

**Net Annual Runoff into Arthur Lake: 1,473 ac. Ft.**

Filling the reservoir to the maximum storage of 1,415 acre-ft. should not present a problem, except during several years of consecutive below normal precipitation. It is noted that Pete Cafferata, Hydrologist for Cal Fire typically uses a C coefficient of .40-.45 on fully stocked timberland, so the .50 estimate given may be on the high side.

#### **Section A: Item #6C: Water Availability (downstream):**

The lake is located in a closed basin (i.e. while water flows into the basin, the water has no natural outlet), so this question is not directly applicable.

3 Tom Benson, NRCS, Red Bluff, 530-527-2667 x 102.

4 Pete Cafferata, Hydrologist, Cal Fire, Sacramento. (Pete.Cafferata@fire.ca.gov).

## **PAUL F. SHOEN – APPLICATION FOR WATER APPROPRIATION**

### **ATTACHMENT #2:**

#### **SECTION "B" NOTICE INFORMATION**

##### **Item #1: Justification Of Amounts Requested:**

**(D): Recreation.** Arthur Lake would provide private recreation for the owner, his family, and invited guests. The lake would not be open to the public. Uses would include scenic viewing, camping, swimming, canoeing, fishing, boating, etc.

**(K): Fish and Wildlife Preservation or Enhancement:** The main use of the lake is providing habitat for resident and migratory waterfowl, and many other species of wildlife. Refer to Section C, Item #7 for a list of species and habitat preserved or enhanced.

**(L): Other (Fire Protection):** Another important function of the lake would be providing water for fire suppression. Fifteen years ago the Fountain Fire burned over 64,000 acres to the north of the property. Arthur Lake was nearly dry at the time and so Cal Fire dipped out of adjacent Silver Lake; a smaller and shallower reservoir. Silver Lake was quickly lowered to the point of not being useful and was significantly impacted as a result. This left inadequate water supplies if another fire erupted in the area.

The Applicant will contact and work with Cal Fire to ensure water is available for fire suppression and that they have access by both fire trucks and aircraft. The restoration of Arthur Lake will become an important fire fighting tool for Cal Fire when fighting major wildfires in the area. The Shoen property would also make an excellent base camp for fire fighters, in conjunction with the lake. Water sources large enough to be used by aircraft in late summer months are a scarce resource in the area and a large water source would provide a great deal of fire protection to the public.

Note: The immediate use of water for fire suppression purposes generally does not require a water right or permit. In this case, however, if the landowner does not have a water right for water storage, then there will not be any Arthur Lake or water available for fire suppression; as all of this water will be loss in lake percolation at no benefit to the public.

##### **Item #2 Diversion and Distribution Method:**

**(D) Storage Reservoirs:** The vertical height given is that of the south embankment of the lake. The enlargement of this structure is expected to require a permit from the Dept. of Safety of Dams. The length of the embankment is a close approximation measured off the topographic map prepared by Pace Civil, Inc.

The west embankment is composed mainly of native soil and contains a rocked spillway. The spillway may need to be updated to current standards, and is expected to include a minimal amount of work. The elevation of the spillway is expected to remain the same. The

top of the existing embankment is already nearly 4 feet above the spillway for "freeboard," and may also need only minor work. Overflows down the rocked spillway will be traveling along the edge of the lava bolder field where erosion will not be significant.

**(E): Outlet Pipe:** The low-water outlet pipe has yet to be designed by a Civil Engineer. Lawrence & Assoc. had estimated in a 1997 proposal that the pipe would need to be 24" in diameter. It would be placed in the embankment at the south end of the lake, along with a rocked outlet to mitigate for erosion. The length of pipe given is a rough estimate as particulars are unknown.

**Item #3 Conservation and Monitoring:**

**(A) Conservation:** The Applicant shall plug and seal any significant leaks in the lake bottom. This may take two or more times as once the water level is raised, new leaks may be detected.

**(B) Monitoring:** A Civil Engineer shall supervise and monitor the south embankment and spillway construction to ensure the work is competent and the structure is safe. Inspections shall follow through the spring following completion to inspect the embankment for leaks and ensure the spillway is functioning correctly.

Thereafter, the Applicant (landowner) shall inspect the embankment and spillway periodically, as required by DSD, to ensure the structures are competent. The Applicant shall also monitor for leaks in the lake bottom by noting lake levels at different periods of the year. If lake levels drop excessively over what would normally be expected due to percolation and seepage, than repair work may be needed.

**Item #4 Right of Access:**

While the Applicant owns all the property where the water will be diverted and used, one road to access the property itself is gated and controlled by Roseburg Resources Co. Access is through the Roseburg "L-Line" (also known as the Smith Camp Road.) and then turning right on the Roseburg "S-Line." It is important that any agency staff or other people entering have permission/key to the gate. Access can be gained by contacting Mr. Dennis Possehn. Mr. Shoen has prescriptive rights over this road and has been used for many years including commercial purposes. Each landowner has cooperated in the past and there has never been an issue.

Roseburg Resources Co.  
Timberland Manager  
P.O. Box 680  
Weed, CA 96094  
530-938-5488

**Item #5 Existing Water Rights:**

The Applicant has a permanent spring (refer to the Project Map, Spring #4) near the east property line, along the inlet of Arthur Lake. There would be little evaporation or percolation as the spring is just up from the edge of the lake. Arthur Lake also receives snowmelt and water from small ephemeral drainages on Mr. Shoen's property. The source flow from Shoen's property is estimated to be 30% of the total inflow or 445 acre-feet. Seepage affects the volume and the observable natural vegetation/water line is at 315 acre-feet of storage. The historical Riparian use of this water has always been for Wildlife Preservation.

However, it appears there still may not be an existing Riparian right to "permanently store" the water in Arthur Lake. Although the storage to date has been "natural," almost all has been lost each summer due to seepage in late summer months. If State Water Resources has a different interpretation of the facts, Mr. Shoen would appreciate hearing it. Mr. Shoen also states, "The lake has never completely dried up as there is always some water in it." Our question would be if the water stays in the lake long enough to create a natural vegetation/water line on the bank, and there is always at least a small volume, would Mr. Shoen have existing Riparian Water Rights to the 315 acre-feet of water, or a portion thereof?

**Item #7 Maps:** Please refer to the Location Maps, aerial photograph, and two Project Topographic Maps (labeled attachment 3.3), prepared by Civil Engineers for Pace Civil Inc. based out of Redding. Two additional full sized topographic maps, prepared by Pace Civil have also been attached.



## **PAUL F. SHOEN – APPLICATION FOR WATER APPROPRIATION**

### **SECTION "C" ENVIRONMENTAL SETTING:**

**State and Federal Permits:** A Wetland Delineation was made by a Professional Wetlands Expert (attached). The Delineation Letter supports the fact that Arthur Lake is an isolate not subject to U.S. Army Corps of Engineer's jurisdiction. I personally took Mr. Matt Rabbe of USACE (Redding, Shasta Co.) to Arthur Lake for an inspection. He concurred to me that his recommendation is that the project is not within the Corps jurisdiction. He also said it could take 6-12 months to receive a formal letter stating that. Therefore, we wish the Water Resources Control Board to go ahead and consider our application and not wait for the Corps official letter. The official Corps letter will be submitted to the Water Resources Control Board as soon as it comes in.

**Item #6: Colored Photographs:** Three copies of color photographs of Arthur Lake are attached.

Photo #1: This was taken at the narrow portion of the lake, looking east.

Photo #2: This was taken towards the west end, looking west towards the west embankment and spillway. Rock was removed from the lava flow and placed along the spillway. You can see a faint high water mark on the lava.

Photo #3: Another shot looking west towards the west embankment and spillway.

Photo #4: Lake level in late summer. Previous effort years ago to fill a fissure in lake bottom.

Photo #5: Altered South embankment with 24" culvert.

Photo #6: Altered South embankment with 24" culvert. Caretaker, Bob Aagard on left and Forester, Dennis Possehn on right.

Photo #7: Looking southwest from the altered south embankment. There is no outlet.

Photo #8: Picture taken from south portion of lake looking north.

Additional photographs are available upon request of the lake with water in it, original construction of the south embankment before it was altered, and of the rocked spillway.

**Item #7: List of Species and Habitat Preserved or enhanced:**

**Habitat:**

a) The habitat for resident waterfowl, migratory waterfowl, and shore birds that require water type of habitat will be enhanced and preserved by creating a permanent body of water.

b) The habitat for raptors will be enhanced and preserved. Bald eagles and other predatory birds frequent the area. Eagles have nested at Arthur Lake historically, but no nests are evident at this time. The project will increase waterfowl populations creating a good food source for many species of raptors and nesting is expected.

c) Habitat for Amphibians will be maintained and potentially enhanced. The existing riparian zone around the lake is good in some areas, but discontinuous or non-existent in others. A permanent body of water will create a long-term riparian zone (donut) around the lake that will benefit amphibians.

d) Mammals that are connected to water will benefit from improved habitat of a permanent source of water and food.

e) Fish habitat will be created and preserved. Currently there are no fish species present in Arthur Lake.

**Wildlife Species:** A partial list of species benefiting from the project follows: Resident species that will benefit are ducks, loons, and other resident waterfowl. It would also benefit migratory birds such as ducks, geese, swans, and Sandhill cranes by providing them with forage and a place to rest along their migration. Raptors expected to benefit are Bald eagles, Osprey, Northern goshawk, Red-tailed hawk, Coopers hawk, and Sharp-shinned hawk. A variety of wading and shore birds such as cranes, herons, and egrets would benefit from a permanent source of water. Also, a variety of song birds will benefit. DFG has verified that potential Willow flycatcher habitat exists. Various amphibians such as frogs, salamanders, and newts would also benefit due to an increased riparian ring around the lake. The project will encourage establishment of willows and alders around the lake that should provide functional Willow flycatcher habitat. A fishery would be developed and maintained, benefiting several trout and bass species.

**SECTION "D" SUBMITTAL FEES:**

Application: Base Fee:

\$ 1,000

Amount of Diversion: <sup>1485</sup>  
~~1,415~~ ac. ft. less 10 ac. ft. x \$15

~~\$21,075~~ 22,125  
~~\$22,075~~ 23,175 D.P.

**Payable to the Division of Water Rights:**

**Payable to the Dept. of Fish & Game:**

**\$ 850**



451-01  
August 4, 2008

Matt Rabbe  
U.S. Army Corps of Engineers  
Redding Regulatory Office  
152 Hartnell Avenue  
Redding, CA 96002

SUBJECT: Jurisdictional Determination Request: Arthur Lake

As we have discussed, our client, Paul Shoen, owns lands encompassing Arthur Lake. The lake is located about 10 miles east-northeast of Oak Run, in Section 11, T31N, R1E, of the Miller Mountain quadrangle, as shown on Figure 1. Although the lake fills during the winter, it drains due to the presence of "holes" in the lake bottom, which overlies lava formations. The lake holds little water by the end of the summer. Our client proposes to enhance the lake by plugging the principal holes, which will extend the depth and duration of ponding. Existing earthen embankments would also be modified to facilitate water storage.

Enclosed for your review is a delineation map showing the ordinary high water mark for Arthur Lake. We anticipate that the lake will be determined to be an isolated feature not subject to Corps jurisdiction. Data supporting a jurisdictional determination is provided in the attached table. We request that you verify the delineation; a preliminary jurisdictional determination may be acceptable as an alternative (although we would like to further discuss the benefits/drawbacks of this approach with you before proceeding with a preliminary JD). Our staff and/or the applicant's representative are available to meet with you in the field as needed to assist in your verification. Please call me if you have any questions or to schedule a field visit.

Sincerely,

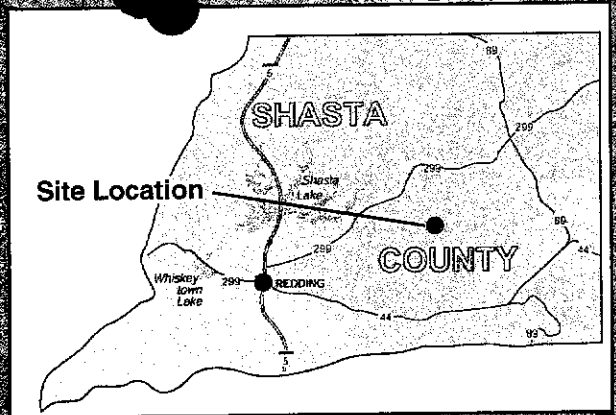
A handwritten signature in black ink, appearing to read "D Burk", written over a horizontal line.

Donald Burk  
Environmental Services Manager

Enclosures: Project Vicinity Map  
Wetland Delineation Map and Supporting Data  
CD with Shapefiles for Delineation Map

c (w/encl.): Paul Shoen  
Dennis Possehn

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FILE: S:\01-Jobs Active\451-01 P. Schoen - Arthur Lake\9 Project GIS\3 Map Documents\Figure 1\_Vicinity.mxd

 Project Boundary



0 1,000 2,000 Feet

19 Figure 1  
**Project Vicinity Map**  
2 of 2

Feature and boundary locations depicted are approximate only. 07.30.08



**DEPARTMENT OF FORESTRY AND FIRE PROTECTION**

P.O. Box 944246  
SACRAMENTO, CA 94244-2460  
(916) 653-7772  
Website: [www.fire.ca.gov](http://www.fire.ca.gov)



To Whom It May Concern

02/01/2009

This letter is to support the application for restoration of Arthur Lake. Arthur Lake is in a remote area of limited water supply in close proximity to major fire occurrences.

During major fires and/or multiple lightning storm fires, it is often difficult to find water supplies large enough to support helicopter drops and fire apparatus use in remote areas, therefore our ability to deliver water to the fire in a timely manner is greatly diminished. If restored, Arthur Lake would provide much needed water supplies for fire suppression which would greatly support CAL FIRES mission to suppress all fires in their early stages.

Bret Gouvea  
Battalion Chief  
CAL FIRE

**MEMORANDUM OF UNDERSTANDING FOR PREPARATION OF  
ENVIRONMENTAL DOCUMENTS**

This Memorandum of Understanding (MOU) is entered into among:

Paul F. Shoen, Landowner,  
the Applicant,  
Possehn Forestry, Inc.,  
the Consultant,

and the State of California, acting by and through the State Water Resources Control Board (SWRCB), Division of Water Rights (Division), to provide for the preparation of an Initial Study (IS), and, upon further authorization by Applicant, for preparation of additional environmental documentation pursuant to the California Environmental Quality Act (CEQA).<sup>1</sup>

**ARTICLE I.  
STATEMENT OF FACTS**

Applicant has submitted:

1. ☒ Water Right Application Arthur Lake  
☐ Petition to Change: Permit \_\_\_\_\_,  
License \_\_\_\_\_,  
Water Right Application \_\_\_\_\_

describing either a water development project requiring an appropriative water right permit from the SWRCB, or a modification to a water development project that has a permitted or licensed appropriative water right. Such proposed water development project or modification to a water development project shall hereinafter be referred to as the Project.

2. Pursuant to CEQA, the Lead Agency is to conduct an environmental analysis of the Project and prepare appropriate environmental documents. The SWRCB has determined that it is the Lead Agency for the above-referenced Project, and that an IS must be prepared for the Project. The results of the IS will be used by the SWRCB to determine whether a Negative Declaration (ND), Mitigated Negative Declaration (MND) or Environmental Impact Report (EIR) must be prepared to comply with CEQA.<sup>2</sup>
3. Pursuant to California Code of Regulations, title 14, section 15084, the SWRCB is authorized to execute a MOU with the Applicant to govern the environmental analysis of the

<sup>1</sup> Public Resources Code section 21000 et seq.

<sup>2</sup> The requirements for the preparation and public circulation of these environmental documents are described in CEQA and the State CEQA Guidelines (Cal. Code Regs. tit. 14, section 15000 et seq.)

Project and preparation of the above-described environmental documents using assistance provided by an independent consultant (Consultant).

ARTICLE II.  
RESPONSIBILITIES OF THE PARTIES

A. APPLICANT

1. Applicant agrees to select a Consultant who is acceptable to the SWRCB Manager (Manager). Consultant shall be responsible for preparing any required documents to the satisfaction of the SWRCB. Applicant agrees to enter into a consulting contract with the Consultant that is consistent with the terms of this MOU. Applicant shall not employ or contract with Consultant to assist in the preparation of environmental documents for this Project on a contingency fee basis.
2. Applicant shall pay all costs associated with Consultant's assistance to the SWRCB in conducting the IS, and, if subsequently agreed upon, the further environmental analysis of the Project. Such costs may include additional studies or analyses, preparation and distribution of all of the environmental documents discussed below, costs of reproducing copies for public review and comment, and preparation for and participation in all SWRCB public meetings and hearings regarding the environmental documents. Applicant shall pay Consultant's costs directly to Consultant.
3. Applicant shall not direct or participate in the preparation of the environmental documents for this Project except to the extent that Applicant provides data and information requested by Consultant and/or the Manager, and provides access to the Project site. Prior to the public release of any documents, Applicant shall have the right to review the documents only for technical accuracy and consistency with the Project description and purpose.

B. SWRCB

1. The SWRCB shall appoint a Manager from the Division. The Manager shall be the day-to-day representative for administration of this MOU and, except as otherwise specifically provided, shall have full authority to act on behalf of the SWRCB with respect to this MOU. Except as otherwise expressly provided, all communications relative to this MOU shall be given to the Manager.
2. The SWRCB shall determine the scope and content of the IS for the Project and the time frame for its preparation, shall determine the scope and content of additional environmental study and documents as may be required, and shall act as liaison with the State Clearinghouse of the Office of Planning and Research.
3. The SWRCB alone shall direct Consultant's work towards conducting the environmental analysis of the Project, and in preparing environmental documents for the Project under the

statutes and regulations implementing CEQA. Consultant shall report directly to the SWRCB, not to the Applicant. The SWRCB shall have sole responsibility for determining the adequacy of any written material or testimony prepared or submitted by Consultant pursuant to SWRCB direction given under this MOU.

4. The SWRCB shall not be obligated in any manner to pay for the services rendered by Consultant.

#### C. CONSULTANT

1. Consultant, including its employees, agents, subcontractors, or any other representatives for this Project shall, from the time of execution of this MOU until formally released, take direction solely from, and be responsible to, the designated Manager in all matters pertaining to the preparation of the IS, any and all supporting documentation, and any and all additional environmental studies and/or documents.
2. Although Consultant will be paid by the Applicant, Consultant is obligated to take direction from the SWRCB, not the Applicant. The Applicant may take appropriate measures, however, to determine whether the costs being charged for the work performed by Consultant are reasonable.
3. Consultant shall not employ any person who holds or has held an interest in this Project or any other proposed project of the Applicant requiring approval by the SWRCB, without the prior written consent of the Manager. Consultant shall execute the Disclosure Statement attached hereto as Attachment 1.

#### ARTICLE III. SCHEDULE AND PERFORMANCE OF WORK

1. Consultant shall assist the SWRCB in preparing an IS for the Project, including all supporting documentation and suggested mitigation measures for any significant environmental impacts which the IS identifies. Within 60 days of execution of this MOU, the Consultant shall submit a preliminary work plan to the Manager for the preparation of the IS for the Project. The preliminary work plan shall include a description of the tasks to be performed, including at least the following items:
  - A. The scope of the water availability analysis to be performed;
  - B. the specific environmental studies to be performed;
  - C. a schedule of specific tasks to be performed in order to carry out the required environmental studies;
  - D. a list of permits required to construct and implement the Project;
  - E. a schedule for consultation with the California Department of Fish and Game and the National Marine Fisheries Service; and



- F. a schedule for consultation with any local, state or federal agency from whom an environmental approval may be required.
2. Based on this preliminary work plan, the Manager and Consultant shall then prepare a final work plan and schedule for completion of tasks.
3. After approval of the final work plan and schedule by the Manager, the Consultant shall implement the final work plan and prepare a draft IS, including suggested mitigation measures and a Mitigation Monitoring Plan (MMP), if necessary.
4. Upon review and acceptance of the IS, the SWRCB shall determine the scope of further environmental review and documentation that may be necessary for SWRCB action on the Project. The Manager shall notify Applicant and Consultant of that determination.
5. If additional environmental studies and/or documents are required to be prepared by the Consultant (which may include, but are not limited to, a draft and final ND, MND, EIR, MMP, and/or Responses to Comments), Consultant shall provide Applicant and the SWRCB a supplemental work plan, subject to the approval of the Manager, which shall include at least the following items:
  - A. A list of the specific tasks required;
  - B. a schedule for the completion of these tasks; and
  - C. an estimate of the costs to complete the tasks, including participation in any SWRCB hearings on these environmental documents.

The supplemental work plan shall be presented to the Manager for approval no later than 90 days after the Manager's notification to Consultant that additional environmental review and documentation is necessary.

6. After approval of the supplemental work plan by the SWRCB, the Applicant shall within 30 days approve or reject the implementation of the supplemental work plan tasks.
7. The SWRCB reserves the right to change the scope of work from that originally identified in any work plan. Such changes may be necessitated by the need for new or additional information, or by the discovery of additional environmental issues during the course of the environmental analysis. The Manager shall give the Applicant and Consultant timely notice of the requirement for such change in scope of work and the reasons therefor. Upon such notice, within 60 days the Consultant shall provide the Manager and Applicant an estimate of the cost and timetable for completing the additional work.

ARTICLE IV.  
GENERAL TERMS OF THE MOU

1. **Term and Effective Date:** This MOU shall be effective from the date of execution by the parties, the last signature to be that of the SWRCB, and shall continue in full force and effect through the completion of the IS or, if subsequently authorized, the end of the further environmental review, environmental document preparation, and hearing process, when the Notice of Determination is filed with the State Clearinghouse, unless terminated earlier by the parties.
2. **Dispute Resolution:** Except as otherwise provided in this MOU, any dispute concerning a question of fact arising under or relating to the performance of this MOU, which is not disposed of by agreement, shall be decided by the SWRCB. The Manager shall transmit the written decision to the Applicant and Consultant. The decision of the SWRCB shall be deemed final and conclusive unless, within 30 days from the date of receipt of such copy, the Applicant or Consultant transmits to the Manager a written appeal. Said appeal shall include specific arguments supporting the appeal. In connection with any appeal proceeding under this clause, Applicant and Consultant shall be afforded an opportunity to be heard before the SWRCB and to offer factual evidence in support of, or in opposition to, the appeal. Pending the final resolution of any such dispute, Applicant and Consultant shall proceed diligently with the performance of their responsibilities in accordance with the written decision of the SWRCB, which is the subject of the appeal.
3. **Termination:** Applicant or Consultant shall have the option of terminating this MOU by written notice to the other parties. Applicant acknowledges that if Applicant terminates the MOU, SWRCB may cancel Applicant's water right Application or Petition for the Project. Applicant shall continue to be liable for Consultant's costs up to the date Consultant receives notice of Applicant's MOU termination. If, for any reason, Applicant's water right Application or Petition is withdrawn or cancelled, this MOU shall automatically terminate.
4. **Progress Reports:** Consultant shall provide the Manager and Applicant with written progress reports every two months. Within 14 days of receipt of each progress report, the Manager may notify the Applicant and Consultant if progress is found to be unsatisfactory, and identify corrective measures that should be implemented by Consultant to achieve satisfactory progress by the time the next progress report is due.
5. **Due Diligence:** All parties are cognizant of the statutory and regulatory time limits imposed upon the Lead Agency for the completion of the environmental documents described herein. Therefore, the parties agree to act with due diligence in the performance of their respective tasks to complete such environmental documents within the mandated time frames.
6. **Failure to Comply:** Failure of Applicant or Consultant to comply with any or all provisions of this MOU, or to provide complete work products to the satisfaction of the SWRCB on a timely basis, may result in the unilateral termination of this MOU by the SWRCB. Upon termination of this MOU, SWRCB may provide the Applicant the opportunity to hire a new Consultant and enter into a second MOU. Applicant's failure to enter into a second MOU shall constitute and be deemed as withdrawal of the Project Application or Petition described in Article I, Paragraph 1.

7. Notices and Designation of Representatives:

A. The Applicant's Representative shall be:

(Name)

Possehn Forestry, Inc.

17395 Coyote Lane, Anderson, CA 96007

(Mailing Address)

(530) 357-4547, Fax: 357-3946 dp4ster@tds.net

(Phone Number)

(Email Address)

The Applicant's Representative shall have full authority to act on behalf of Applicant for administration of this MOU. All communication given by the SWRCB Manager to the Applicant's Representative shall be as binding as if given to the Applicant.

B. The SWRCB Manager (Manager) shall be:

Division of Water Rights

State Water Resources Control Board

P.O. Box 2000

Sacramento, CA 95812-2000

Phone: (916) 341- \_\_\_\_\_

Email: \_\_\_\_\_

The Manager shall represent the SWRCB during the administration of this MOU and shall serve as coordinator and director for the environmental analysis of the Project and preparation of the environmental documents.

C. Consultant shall name a Representative who shall be responsible for assisting the SWRCB in conducting the environmental analysis of the Project and preparing the environmental documents, and who shall serve as the liaison with the SWRCB. All communications given by the Manager to the Consultant's Representative shall be as binding as if given to the Consultant.

The Consultant's Representative shall be:

(Name)

Dennis Possehn, President, Possehn Forestry, Inc.

Registered Professional Forester (RPF #1759)

17395 Coyote Lane, Anderson, CA 96007

(Mailing Address)

(Phone Number)

(Email Address)

- D. Any party may change its designated representative or may change its address by written notice to the other parties.

Dated: 1-29-09

By:   
(Signature)

PAUL F. SHOEN  
(Printed Name)

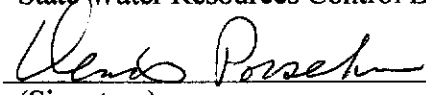
LANDOWNER  
(Title)

PAUL F. SHOEN  
(Applicant Name)

Dated: \_\_\_\_\_

By: \_\_\_\_\_  
Chief, Division of Water Rights  
State Water Resources Control Board

Dated: 2-02-09

By:   
(Signature)

DENNIS POSSEHN  
(Printed Name)

PRESIDENT, RPF#1759  
(Title)

POSSEHN FORESTRY, INC  
(Consultant's Name)

ATTACHMENT 1

WATER RIGHT APPLICATION Arthur Lake  
OR

PETITION TO CHANGE:

WATER RIGHT PERMIT \_\_\_\_\_,

WATER RIGHT LICENSE \_\_\_\_\_,

WATER RIGHT APPLICATION \_\_\_\_\_.

DISCLOSURE STATEMENT OF ENVIRONMENTAL CONSULTANT

Dennis Possehn

Possehn Forestry, Inc. has no financial or economic interest in the  
outcome of the State Water Resources Control Board proceedings on the subject water right  
application or change petition.

Dated: 2-02-09

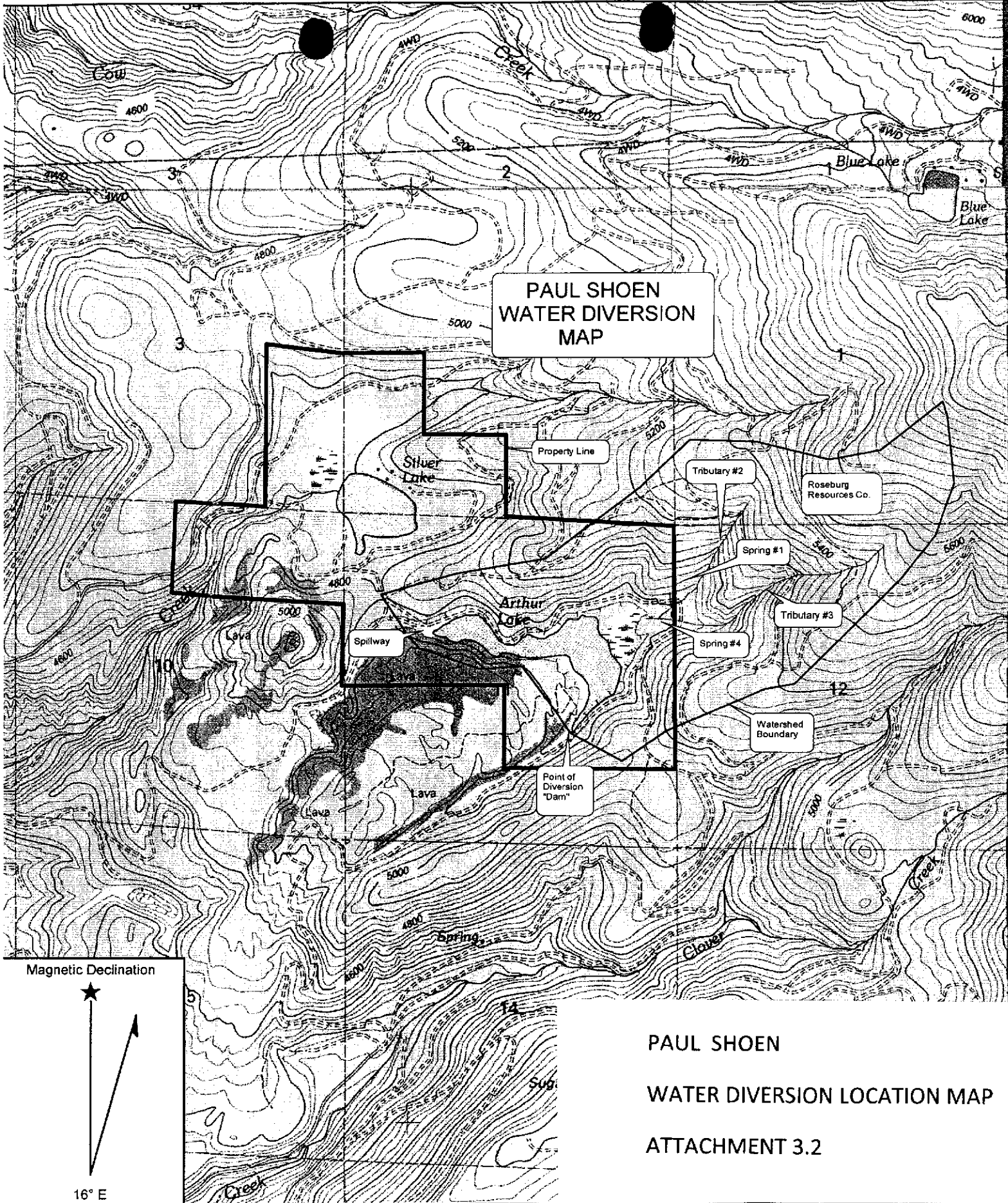
By: *Dennis Possehn*  
(Signature)

Dennis Possehn  
(Printed Name)

President , RPF #1759  
(Title)

Possehn Forestry, Inc.  
(Name of Consulting Firm)



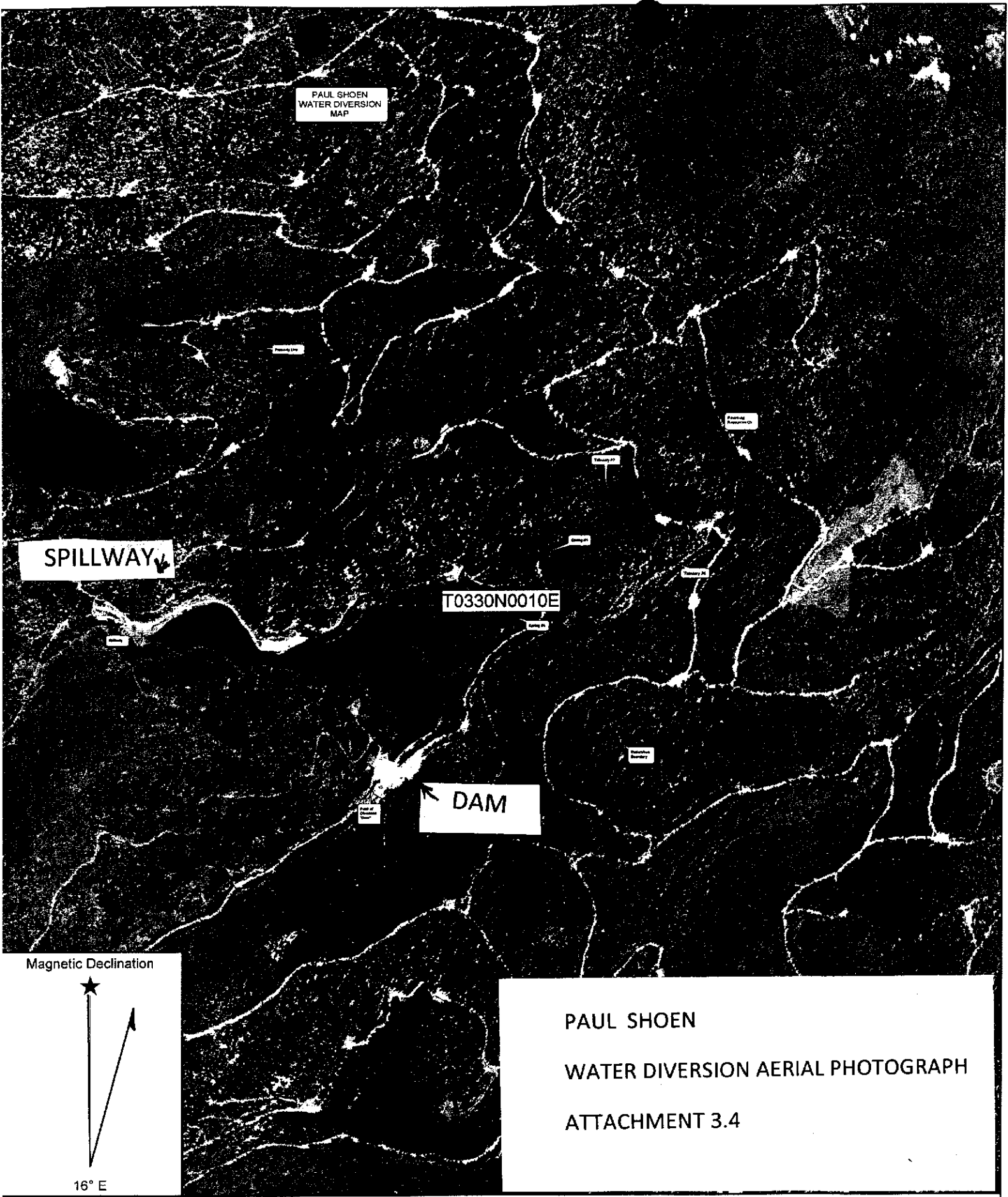


PAUL SHOEN  
WATER DIVERSION  
MAP

PAUL SHOEN  
WATER DIVERSION LOCATION MAP  
ATTACHMENT 3.2

Name: MILLER MT  
Date: 3/18/2008  
Scale: 1 inch equals 2000 feet

Location: T0330N R0010E CA Mount Diablo  
Caption: PAUL SHOEN  
30 WATER DIVERSION  
MAP

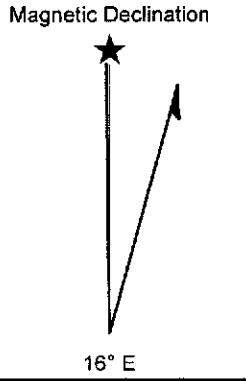


PAUL SHOEN  
WATER DIVERSION  
MAP

SPILLWAY

T0330N0010E

DAM



PAUL SHOEN  
WATER DIVERSION AERIAL PHOTOGRAPH  
ATTACHMENT 3.4

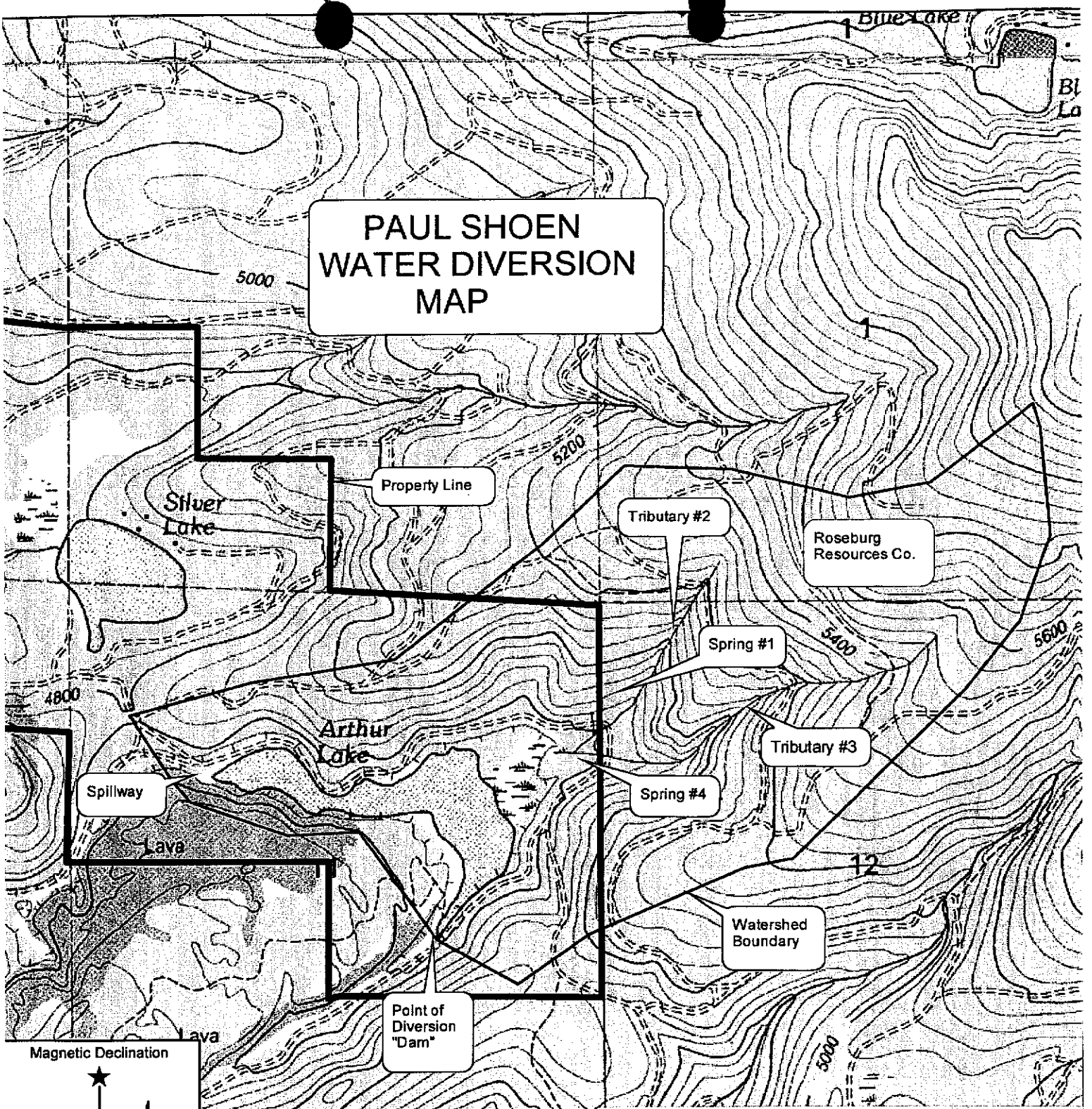
Location: T0330N R0010E CA Mount Diablo  
Caption: PAUL SHOEN  
31 WATER DIVERSION  
MAP

Name: MILLER MOUNTAIN NW, CA  
Date: 3/18/2008  
Scale: 1 inch equals 1333 feet





# PAUL SHOEN WATER DIVERSION MAP



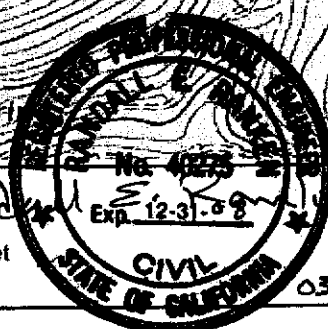
Roseburg  
Resources Co.

PAUL SHOEN

WATER DIVERSION PROJECT MAP

ATTACHMENT 3.3

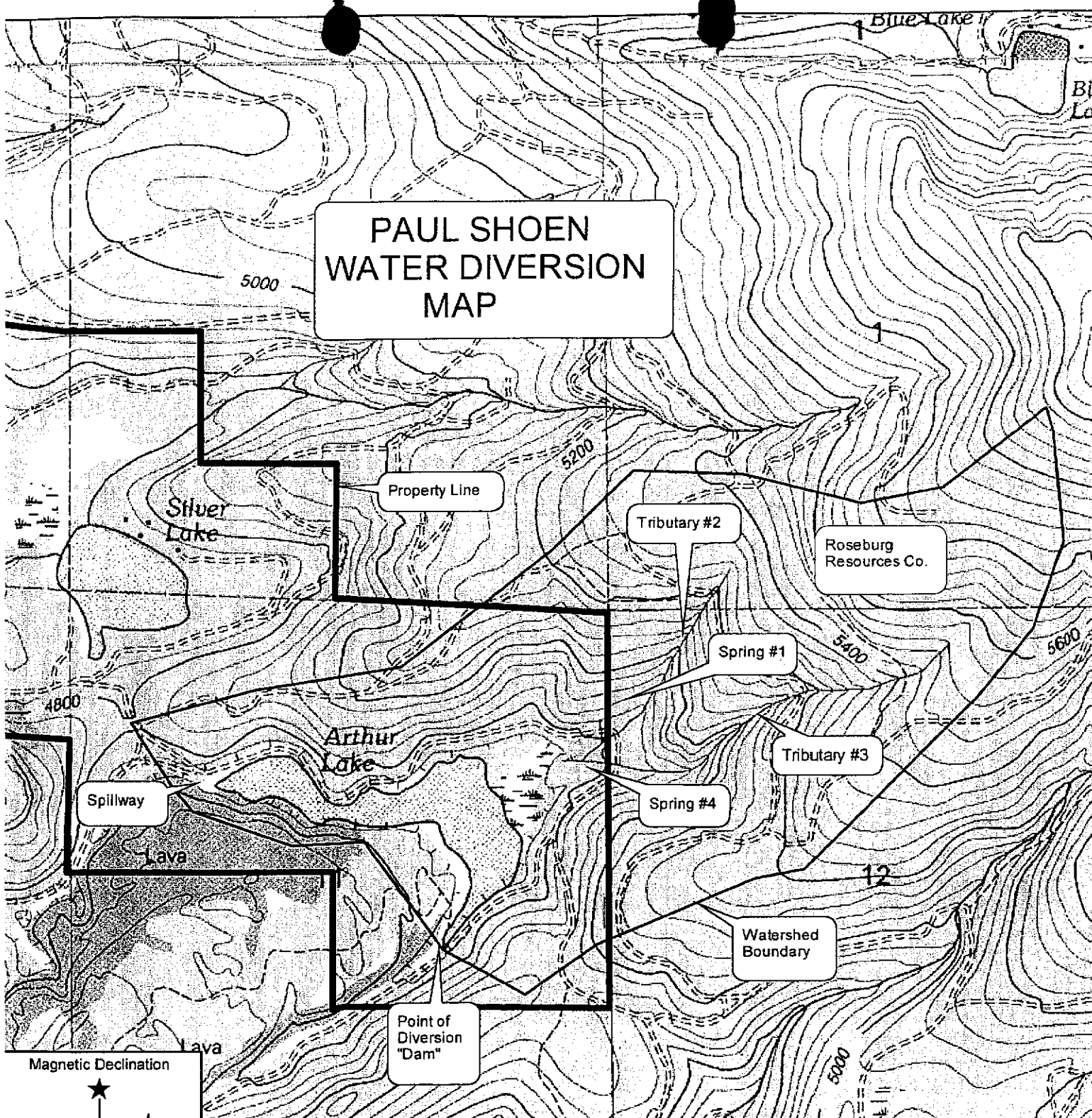
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Date: 3/18/2008  
Scale: 1 inch equals 1333 feet



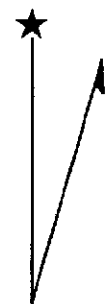
Location: T0330N R0010E CA Mount Diablo  
Caption: PAUL SHOEN  
33 WATER DIVERSION  
MAP

03/24/08

# PAUL SHOEN WATER DIVERSION MAP



Magnetic Declination



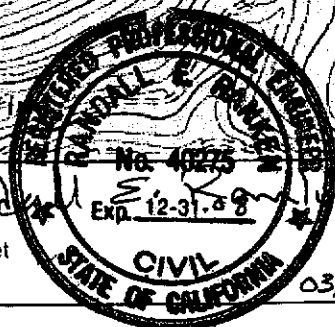
16° E

PAUL SHOEN

WATER DIVERSION PROJECT MAP

ATTACHMENT 3.3

Name: MILLER MT  
Date: 3/18/2008  
Scale: 1 inch equals 1333 feet



Location: T0330N R0010E CA Mount Diablo  
Caption: PAUL SHOEN  
WATER DIVERSION  
MAP

03/24/08

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